

REMARKS

Certain objections to the form of Claims 1-4 are set out on Page 2 of the Office Action, and each of those claims has been amended to remedy those objections. For example, the term “light comprising an optical image of an object” as set forth in Claim 1, has been changed to more clearly state “light from the object”. Also, Claims 2-4 have been amended so that the term “the predetermined frequency difference”, which lacked proper antecedent basis, has been changed to read “difference frequency”, as that term is now defined in the next-to-last clause of amended Claim 1.

In addition, all of the claims were rejected as being either anticipated or obvious primarily in view of the cited Miyagawa patent. Applicants submit that the claims, as amended herein, are patentably distinct over Miyagawa, taken singly or in combination with any of the other cited references. In particular, Applicants’ Claim 1, the sole independent claim in the application, requires an image pickup unit having an array of photo-detection elements, and having a light emitting element which provides a reference light. A wave synthesizer synthesizes the image light from an object together with the reference light and guides the synthesized light to the image pickup unit. Also, a filter is provided for extracting a difference frequency, between a frequency of the light from the object and the frequency of the reference light from outputs of the photo-detection elements. Finally, Claim 1 requires that the light emitting unit changes the frequency of the reference light in accordance with the difference frequency extracted by the filter.

The disclosure of the cited Miyagawa patent pertains to an apparatus for obtaining tomographic information from the interior of a medium 10, as shown in Fig. 1 thereof. The tomographic information is then processed for application to a CRT 38. In the Office Action, the position is taken that Miyagawa discloses all of the limitations of Applicants’ Claim 1. However, Applicants are unable to discern any analogy between the


disclosure of Miyagawa and the precise terms of Claim 1. Moreover, Applicants are unable to find any disclosure in Miyagawa suggesting that the band-pass filter 34 in Miyagawa extracts a difference frequency between the frequency of the light from the object and the frequency of the reference light. In particular, the discussion of the band-pass filter 34 of Miyagawa is presented at column 9, lines 14-19 thereof, and that disclosure is wholly unrelated to the filter in Applicants' Claim 1 which extracts a difference frequency. Also, the band-pass filter output in Miyagawa has no relation to a reference light frequency changed in accordance with a difference frequency extracted by the filter, as required in Applicants' Claim 1.

The secondary reference relied on in the Office Action, namely, the Horiguchi patent, does not overcome the deficiencies of Miyagawa as a rejecting reference. That is, Horiguchi relates to reception of reflected laser light and a heterodyne detection operation thereon using a reference light.

For all of these various reasons, Applicants submit that independent amended Claim 1, as well as all of the claims that depend therefrom, are allowable and a formal Notice of Allowance is respectfully solicited.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,


Attorney for Applicants

Registration No. 24,613

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 402303v1